

Neocomp B3 40/70 PS

Product description

Magnetic material: Isotropic NdFeB

Bonding material: PPS

Magnetic properties

	Unit	min	typ
Residual induction; B_r	mT	485	495.5
Coercive force; b_{Hc}	kA/m	320	338.7
Intrinsic coercive force; i_{Hc}	kA/m	750	815.8
Energy product; BH_{max}	kJ/m^3	38	41.3
Temperature coefficient; TK_{Br}^{**}	$\%/^{\circ}\text{C}$		-0,11
Temperature coefficient; TK_{iHc}^{**}	$\%/^{\circ}\text{C}$		-0,40
Magnetising field strength; M	kA/m		2000

Values shown in the table are typical and vary depending upon part geometry.

Other relevant properties

	Unit	Value
Density; ρ	g/cm^3	4.77
Operating temperature; $T_{op}^{*/***}$	$^{\circ}\text{C}$	150
Tensile strength; R_m	MPa	35.4
Flexural strength; σ_{fM}	MPa	72.3
Elongation at break; ϵ	%	0.158
Young's modulus; E	GPa	22.8
Glass transition; T_g	$^{\circ}\text{C}$	80
Melting temperature; T_m	$^{\circ}\text{C}$	280
Expansion coefficient; CLTE	$10^{-6} /^{\circ}\text{C}$	10

* Max operating temperature depends on the magnet dimensions, the exposure time and the specific application. Please get in touch with our applications engineers for any further info.

** In the temperature range from 20 $^{\circ}\text{C}$ to 100 $^{\circ}\text{C}$.

*** For magnets with PPS as binder, the chemical resistance to oils, grease, motor oils etc. is significantly better than for PA-bonded magnets; however this has to be checked in individual cases.